

ABSTRACT

An ultrasonic diagnostic apparatus includes a transmission unit that transmits at least one ultrasonic pulse from a surface of a skin of a subject toward a blood vessel (21) thereof, a reception unit (3) that receives an
5 ultrasonic echo reflected by the blood vessel and converts the same into an electric signal to obtain a signal of the ultrasonic echo along a depth direction from the surface of the skin, a movement detection unit (5) that analyzes a phase of the ultrasonic echo signal in a direction traversing the blood vessel so as to calculate a movement amount in each of a plurality of parts included
10 in a blood vessel wall constituting the blood vessel and a vicinity of the blood vessel wall, and a boundary detection unit (7) that detects a boundary position between the blood vessel wall and a blood flow region (22) in a lumen of the blood vessel through which blood flows based on a variation in the calculated movement amount in each part. Instability occurring when a
15 brightness signal in image data is used can be eliminated, so that a state of a blood vessel, such as an IMT value, can be measured correctly using ultrasonic waves.